

In the Claims:

Please delete claims 1-17 and add new claims 18-36.

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18. A distributed emergency lighting system for use in a building having one or more conventional lighting system areas powered from a source of alternating current (AC) voltage, said distributed emergency lighting system comprising:

A 2
an electroluminescent (EL) panel stripe;

a source of direct current (DC) voltage;

means electrically coupled to said DC voltage source for providing electrical power to said EL panel strip; and

said electrical power means further comprising control means for illuminating automatically without operator intervention said EL panel stripe from a non-illuminated state to an illuminated state for a predetermined designated lighting area of the one or more conventional lighting system areas within the building in response to an emergency input triggering event.

19. The distributed emergency lighting system as defined in claim 18, wherein said EL panel stripe is illuminated in said predetermined designated area for providing low-level path marking indicating a visual delineation of the path of egress.

20. The distributed emergency lighting system as defined in claim 18, wherein said EL panel stripe is illuminated in said predetermined designated area for providing floor illumination within a prescribed distance from at least one wall of a room in accordance with emergency lighting code requirements.

21. The distributed emergency lighting system as defined in claim 19, wherein said EL panel stripe is a stripe of indeterminate length located on a floor and on a wall at or near the floor in the predetermined designated lighting area of the one or more lighting areas accordance with emergency lighting code requirements.

22. The distributed emergency lighting system as defined in claim 19, wherein said EL panel stripe is illuminated to light an exit sign at or near the floor in accordance with emergency lighting code requirements.

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Cmt. 23. The distributed emergency lighting system as defined in claim 18, wherein said power means further comprises an EL power supply having an input coupled to the line side of an electrical switch supplying commercial AC power to the conventional lighting located in said designated area and to said DC voltage source in the absence of AC power at the line side of said electrical switch.

24. The distributed emergency lighting system as defined in claim 23, wherein said EL power supply further includes means for adjusting the light intensity of the EL panel to a desired intensity.

25. The distributed emergency lighting system as defined in claim 18, further including self-diagnostic circuit testing means electrically coupled to said electrical power means and said EL panel stripe and said control means for verifying operational conditions of the lighting system including the detection of an electrical short circuit and an electrical open circuit of an EL panel coupled to said control means.

26. The distributed emergency lighting system as defined in claim 25, wherein said self-diagnostic circuit testing means includes detection of a normal operating circuit of an EL panel coupled to said control means.

27. The distributed emergency lighting system as defined in claim 25, wherein said self-diagnostic circuit testing means includes detection of an inoperative electrical power means.

28. The distributed emergency lighting system as defined in claim 25, wherein said DC source further comprises a battery and said self-diagnostic circuit testing means further comprises testing means for determining the charge capacity of the battery.

29. The distributed emergency lighting system as defined in claim 28, wherein said battery testing means further comprises means for connecting a test electrical load to the battery for a predetermined short time interval;

means for sensing the battery voltage during the short time interval that said test electrical load is connected, and

means for providing an alarm indication in response to the battery voltage falling below a predetermined voltage value during the voltage sensing time interval.

30. The distributed emergency lighting system as defined in claim 29, wherein the test electrical load is in the range of 10 to 20 times the electrical load of the emergency building lighting system.

31. The distributed emergency lighting system as defined in claim 30, wherein said predetermined short time interval is in the range of 10 to 30 seconds.

32. The distributed emergency lighting system as defined in claim 25, further comprising means for activating said self-diagnostic testing means in accordance with a predetermined time schedule.

33. The distributed emergency lighting system as defined in claim 25, further comprising means for manually activating said self-diagnostic testing means.

34. The distributed emergency lighting system as defined in claim 25, further comprising means for activating said self-diagnostic testing means in response to the conventional lighting system located in said designated area being turned on and off.

35. A distributed emergency building lighting system comprising:
an electroluminescent (EL) panel;
means for providing electrical power to illuminate said EL panel; and
control means electrically coupled to said electrical power means and said EL panel for illuminating a predetermined designated area within the building in response to an input stimulus;

wherein said power means further comprises an EL power supply having an input coupled to the line side of an electrical switch supplying commercial AC power to the conventional lighting located in said designated area and to a DC voltage source in the absence of AC power at the line side of said electrical switch, and